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ADDRESS BY

JOHN S. ROESELER

SUPERINTENDENT OF SCHOOLS  
FOR SAUK COUNTY



## IS IT PROFITABLE TO TEACH PSYCHOLOGY AND PEDAGOGY TO THIRD GRADE RURAL SCHOOL TEACHERS?

(Address given before the S. E. Teachers' Association at Watertown, on April 2d, 1898, by J. S. Roeseler, County Superintendent of Schools of Sauk County, Wisconsin.)

There was a time when all instruction at teachers' institutes in the state of Wisconsin was of a purely academic nature. The time has now come when you can hardly find an institute which has not some exercise devoted to school management, pedagogy, or psychology. Principles and methods of teaching are fast gaining ground as subjects of study and are encroaching more and more on the academic field.

Some well-meaning people are of the opinion that this movement toward professional instruction in our institutes is premature because the great majority of teachers in our rural schools have a too limited academic knowledge. They believe that the professional instruction is largely a waste of time, that only a few in the upper strata are benefited thereby because the subjects are too abstract for the comprehension of the great bulk of teachers in the lower strata. The institute will be a success only when its exercises yield the greatest good to the greatest number.

Sauk County, I think, has in years past taken the lead in this movement toward professional work in institutes. When my predecessor, W. H. Schulz, was superintendent I sometimes heard the remark made in other parts of the

state that at the teachers' institutes in Sauk County it was customary to plunge right into psychology and pedagogy, head over heels. Mr. Schulz was an enthusiastic worker, however, so that he steered straight on in his course even though nearly all other institute workers were very skeptical as to the profitableness of such work. The good results that I saw growing out of Mr. Schulz's efforts influenced me to follow a similar course.

I am firmly of the opinion that professional work, exercises in psychology, pedagogy, and school management, is the most profitable work that can be done at institutes even for ordinary third grade rural school teachers, provided, however, that the material is judiciously selected and the method of instruction is carefully adapted to the capability of the learner. No learning of meaningless definitions, no memorizing of abstract principles will fill the bill; if the work is of this character then I say away with it, the sooner the better.

If we apply the fundamental principles of teaching in our instruction in psychology and pedagogy the same as we do in the teaching of other branches, the obstacles to be overcome in those lines will be no greater than it is in other lines. We must be wise enough not to attempt the teaching of all of psychology or all of pedagogy to these beginners. The most that we can attempt is to give them a clear knowledge of the primary concepts and of a few of the fundamental principles with ample practical application thrown into the bargain.

We all know that we can not teach all of geography or history or physiology or language or drawing or mathematics to primary or middle form or upper form pupils, yet we do not hesitate to teach a certain select portion of each of these subjects in each of the forms. We know that the only way to learn to swim is to go into the water and make

repeated attempts. We know that the mother's advice to her daughter never to go into the water until she could swim was stupid advice, and yet in the teaching of psychology and pedagogy many of us who have good judgment in other things have no better judgment than had this mother. We would leave all instruction in these branches until the persons have advanced to the senior class of a normal school, college, or university. We would withhold all instruction on these subjects from that large number in charge of our rural schools who need it most.

This work will not be successful if we make use of the methods of teaching that prevail in instructing seniors in these subjects in our colleges and universities. That pedagogic principle: "Teaching, both in matter and in method, must be adapted to the capability of the taught," also applies in elementary psychologic and pedagogic instruction. The same is true of the following maxims: Observation before reasoning; the concrete before the abstract; sense knowledge before thought knowledge; facts before definitions or principles; processes before rules; from the particular to the general; from the simple to the complex; from the known to the related unknown. It is nonsense to commit to memory the principles of teaching without practical applications on each one of them. This will never lead to good teaching any more than the learning of the definitions and the rules of grammar without practice in the use of language will result in habituating the person to the use of correct language. It is of the utmost importance in psychologic and pedagogic instruction to give attention to facts before we give attention to definitions or principles, otherwise no usable knowledge can result.

The better to illustrate the kind of psychologic and pedagogic instruction I believe in, I will give an abbreviated account of some exercises conducted on these lines in

the summer schools and institutes of Sank County. Though falling far short of giving an accurate picture of the real work done, yet imperfect as the picture of the actual work may be, it will serve to suggest the lines we have attempted to follow out. I wished to teach my teachers the principle: "The primary concepts and ideas in every branch of knowledge must be taught objectively in all grades of school." I proceeded in the following way: First, I planned and reflected as to how I could make clear to these people what is meant by primary concepts and ideas; Second, How to illustrate to them what is meant by objective teaching, and to show the need of such objective teaching to them in the most impressive way, not only in the instruction of pupils in the primary form but its need to each of them individually in their attempts to acquire knowledge in what is to them a new or unexplored field.

I found that nearly all of them had little or no knowledge of Botany, therefore I selected my material from this field with two distinct purposes in view, viz., to give them new knowledge and that in the attainment of this new knowledge they might have a chance to watch the process, how it operated upon their own minds and by reflection thereon evolve some of the fundamental principles of teaching as well as to note the steps and mode of the intellectual processes involved. I brought to my class a number of flower clusters: spikes, umbels and racemes. I had enough specimens of each kind to supply every individual in the class with one. Of spikes I had three different kinds, the English Plantain, the Mullein, the Verbena. I gave to each one in the class a Plantain spike and called upon several to describe the arrangement of the flowers thereon, the manner of blossoming, etc. What they did not definitely bring out in their descriptions I drew out by questions.

After the examination and description I asked whether any inember of the class could give me the botanical name of such a flower cluster, but found that no one knew it. I then told them that it was called a spike, and called upon some one to formulate for me the definition of the botanical term spike. I then told them to close their eyes and see whether they could still see in their mind's eye the spike they had handled. I then told them that what they had in their mind was in psychologic language called a sense concept or an individual concept; some psychologists also call it a percept but as we were going to follow White in this study we would call it a sense concept or an individual concept. Now let us for a moment consider what this sense concept is and how it was produced. Was that from which we derived it without us or within us? Internal or external? Material or immaterial? Physical or mental? We then agreed that it was an external, material object. Now what is that sense concept in our mind which we had derived from this external, material object? Is it material or immaterial? Physical or mental? We then agreed that this sense concept is a mental product and is immaterial. It is in the mind, the little world within us, while the external, material object from which it was formed and to which it corresponds is in the great world without us. When the product was being formed it was necessary that the external, material object had to be near us, but now after its formation will the product vanish from our minds as soon as we remove the object or will it remain? This concept in our mind then bears a similar relation to the object from which it was formed as does the photograph to the person or perhaps better still the negative from which the photographs are printed. Not a particle of the person has entered into the negative and still it represents his form and appearance. The difference however is that the negative is an imprint

on a material substance, while the concept is within the mind, which is immaterial.

Now what will become of this concept after we go away from this class and turn our attention to other business? Will the concept be stored away in the mind or will it vanish? Can we recall it after we have not thought of it for some time? May we recall it at any time or place? Can we recall both the mental product and the material object at any time or place? Then we will agree that we can not recall material objects but only the mental products, or concepts, that represent these objects. The only way we can get back the object is to go after it and get it or send some one after it, and then only can we get it if it is not destroyed, or lost in some other way. Not so with the concept. We formed it here in this room and weeks or months after we may recall it in Texas or in Halifax if we happen to be there, even though we may never have had occasion to think of it since its formation.

Is that which we recall the same mental product, or concept, which we had in our mind at the time we first formed it from the object? If so, where has it been meanwhile and what has brought it back? Psychologists are pretty well agreed that nothing is stored up in the mind in the manner in which we store goods in a store room, that the concept we had in the mind vanishes and vanishes forever the moment we cease thinking of it. All that remains in the mind is the power to produce a like concept. The new concept is like the old concept and like it represents the object. The mind is the negative, capable of forming any number of photographs after the impression has been clearly made. This reproducing, and representing by the mind coupled with the consciousness that it represents something that was in the mind before, is what we call mem-

ory. We shall at a future lesson dwell upon other things that the memory recalls besides sense concepts.

What leads the mind to recall a given concept at a given time? We can not undertake to mention all but let us bring out a few of the most common ones. Hearing or seeing the word which we have associated with the concept leads the mind to reproduce the concept for which it stands. A word is the sign of an idea and calls up that idea in the minds of all persons who have associated the same idea with the same word, but it will not call up that idea in the mind of the person who has learned the word but has associated no idea with it. To the latter it is a mere sound or symbol, an empty vessel. We should therefore be careful that every word we learn be filled with meaning so that it may serve as a vessel for conveying ideas from other minds to our own, and from our minds to other minds. The word, "spike," is associated with several concepts, so that it might not convey the same idea to the mind of the carpenter that it conveys to the mind of the Botanist. The word *g-u-t* occurs in the German, in the Norwegian and in the English languages, but it conveys a different idea to the Norwegian than it does to the German, and the idea it conveys to the Englishman bears no relation to the idea conveyed to either of the former.

There are many different means, voluntary and involuntary, that help in the recalling of concepts, to which we will allude in our study farther on. We will now consider the manner in which the concept "spike" was formed. The first condition necessary was the presence of the material object. But is the presence alone sufficient? I have here a little box in which I have an object, but you have to take my word for it that there is some object in it. You are not certain whether there is an object or not within it, and if you believe my word that there is an object within you have

no idea what it is like, you know none of its qualities. Now I may take this box very close up to every one of you, even touch every one with it and still you do not succeed in finding out anything about it, you get no concept of the object or objects within. Why not? We can not see it, no rays of light reflected from it can strike our eyes; the rays of light are cut off by the walls of the box. Hence there is no chance for forming an image on and stimulating our retina, so as to effect the optic nerve for conveying an impulse to a brain center and set up an action within the mind. This is true enough. You are now in the condition of a person who is in the dark, or of a blind person. But has a person surrounded by darkness or one who is blind no other means to get a concept of an object? Yes, by touching the object, but the walls of the box prevent us from touching the object, so the touch cells embodied within the skin can not be stimulated so as to effect the nerves connected therewith and hence no impulse can reach the brain and set up mental action. Shake the box, possibly we might catch a sound with our ear and thus have an impulse conveyed to the brain. Let us smell of the box. Let us lift the box. Either the sense of smell or the muscular sense might give us a clue to its contents. The only other channel through which we can get knowledge of objects in the external world is the sense of taste, but as we are not able to touch the object we can not taste it.

Who can think of some other way of getting a concept of the object? Give us the name or names of the objects within. The scientific names of the three flower clusters within were given, but they conveyed no meaning. Give us a description of each. Can a primary concept or idea be taught through its word? You all seem to agree that it can. I gave you the names yet you did not get the concepts therefrom, now you insist that if I give you a verbal description

thereof you can get the concepts. Well, let us see. I will make my description very definite, specific and exact. The three flower clusters within this box all belong to that class that are named "heads." The first has a flat naked receptacle at the end of a naked hollow scape. The involucre is double, erect in the bud, reflexed in the flower. The corollas are yellow, strap-shaped and epigynous. The calyx is in the form of a plume of capillary pappus on the summit of the beak of the akene. As the class time is nearly up I will refrain from giving the description of the other two. I will repeat the description of the cluster I have just given once more so that you can remember it and repeat it to me in class tomorrow. The description was repeated and the class was instructed to go out into the field in order to find a flower cluster that would correspond to the description and bring it to class the next day, and point out the various parts described. You will also be called upon to repeat the description I gave you.

The next day I called upon different members of the class to relate what we had done in class, and succeeded in getting an excellent account of everything except that no one succeeded in repeating the verbal description of the flower cluster, and no one had brought a specimen for showing me the "head" and the parts described. I acted as though I was very much displeased that they had failed in just that part on which I had laid particular stress. I asked them what they would do with their pupils under like circumstances, whether they would not give them a good scolding, keep them in at recess or punish them in some other way. What can be expected of pupils who lack the energy to exert themselves in going out into the field to find specimens when they are specially instructed to do so, nay, that can even not repeat a description that has been clearly stated to them twice? I then questioned them about the

causes why they could tell all the rest that had been done in class so well and why they could not tell about the other.

We then agreed that it was due to the manner of teaching, that that part that had brought good results was objective teaching and that which brought poor results was not, that for the attainment of new knowledge the former was good teaching and the latter poor teaching. We further agreed that no primary concept or idea can be taught through its word; that every concept or idea is the product of the mind's own action; that knowledge can be presented to the mind by means of language only when the words used represent known concepts and ideas. In the verbal description given most of the words used represented concepts and ideas not known to the hearers, hence failed to awaken proper mind activity and could therefore not result in knowledge. What use would it have been to you if you had all succeeded in repeating verbatim the description I gave you as long as it conveyed no knowledge to you? You would have been none the wiser for your mental strain and exertion.

Is it not true that the largest proportion of unsatisfactory results in elementary instruction are due to the above named error? Teachers are teaching words instead of things and are wondering why their pupils are so dull and stupid, why they don't like to go to school and learn. Let us then sum up what we have been considering by a formal statement. The primary concepts and ideas in every branch of knowledge must be taught objectively in all grades of school. I then asked them how many could see in their mind's eye the "plantain spike." Is that what you have recalled, the object? No, it is a mental product that represents the object we saw yesterday and this mental product we call a primary concept. What kind of an act recalls the

concept? It was an act of memory. Memory was then defined.

What kind of an act must precede an act of memory or representation? A presentative act which conditions several things. First, that there must be some object of knowledge and a mind. Further that these two must be brought in relation in some way. The sensorium consisting of the brain at one end and sensitive end organs at the other end connected by nerves is what serves for bringing the two in relation. The external, material object or some force proceeding from it must make an impression upon the sensitive end organ of one or more of the special senses. If the impression is too weak no sensation will result. If sufficiently strong the sensitive end organ will magnify it sufficiently to send an impulse along the connecting nerve to a brain center, there in some way setting up mental activity. Each of these was illustrated by experiment.

The concept of the spike that you formed yesterday was a presentative product. Let us see through what sense or senses the material for its construction was obtained. What color was the spike? Green. Through what sense was it obtained? Sight. Can you still see this color in your mind? This is also a presentative product, according to White it is called a sense percept. Mr. White defines a sense percept as a mental product obtained by one perceptive act through a single sense, and a sense concept as a mental product formed by a combination of two or more percepts obtained through one or more senses. Another percept that we obtained through the eye and which entered into the formation of the concept "spike" was form.

All of you may now close your eyes and bring before your mind's eye the plantain spike. Will you now in your mind's eye change the color of the spike to a blood red. Now change it so that it shall look snow white. Now

change to its original color. Now change the size of it so that it shall appear as large as a base ball bat. Change it again, that it shall appear as small as a pin. This activity of the mind which you have been exercising is the imagination but it is only one phase of the imagination, the one that we call the modifying. Describe in what respect it resembles memory and in what respect it differs from it. The raw material with which both deal are presentative products; neither of these activities can take place until the presentative powers have prepared the material needed for representation. Both are representative powers and both deal with images. Memory represents things as they are, while imagination represents them and modifies or recombines them at will.

The next day a second phase of the imagination was illustrated by reading Franklin's story of "An ax to grind." During the reading a number were called upon to describe their mental pictures of Franklin, of the stranger, the ax, the grindstone, etc. They were then told that this was termed the constructive phase of the imagination and as it entered so extensively into all school work it was often called the school phase. They were called upon to give illustrations from different studies to show definitely how this phase of the imagination was involved and what special use it served.

With a few chalk marks I drew a tree on the blackboard and asked the class what it represented. It conveyed to each one the idea I wished to have conveyed. They all recognized what it represented and they recognized that the activity of the mind involved that enabled them to interpret it was the constructive phase of the imagination. I then showed them that I did not draw a particular tree that I had seen and the activity of the mind on my part involved was also a phase of the imagination, called the creative imagination. I then described a landscape to them which I located a half a mile from where we were, with which they

were all familiar and told them that the picture I would describe to them I had never seen myself. They all saw in their mind's eye the picture described and recognized that the activity involved on their part was the constructive imagination, but the activity involved on my part was the creative imagination. Illustrations were further given showing the need of the creative imagination to the novelist, the musician, the painter, the poet, the orator, etc.

I called their attention to the various means I had made use of to render active various powers of their minds, first a presentative power, sense perception, second two representative powers, memory and imagination, and summed it up by a formal statement of another principle: Knowledge can be taught only by occasioning the appropriate activity of the learner's mind.

We may use words in our instruction that represent known concepts to the pupils but the pupil may get no knowledge therefrom because the teacher does all the reciting himself while the pupil's mind is passive. No thought is our own until we have produced it by our own thinking. When we read a thought, thought out by some one else, or hear it uttered, it may become a thought to us and make us wiser on the condition that it sets in activity our thinking machinery. The words only can be transferred from one mind to another, but not the concepts or ideas for which these words stand. But even this I have not stated quite strong enough, to get the mere words our mind can not be entirely passive. It must exert some activity. The great mistake that so many teachers make is that they neglect to assure themselves whether the minds of their pupils are active during the class exercise, and in this way they waste a great deal of time and energy.

How can a teacher who knows nothing of the constitution of the human mind be sure that his school work is such that it is calculated to call into activity and cultivate all the mental powers and bring about harmonious development? I led you to acquire sense knowledge by inducing

sense activity, cultivated your imagination by exercising your imagination and later on I will show you that you get thought knowledge by calling into activity your various thought powers.

During the progress of the study we found occasion to refer frequently to the experiments I have related for illustrating and making clear other psychological and pedagogical facts, besides bringing in many additional illustrations and experiments. We studied Botany not for its own sake but for the purpose of using it as a means to obtain thereby a knowledge of psychology and pedagogy, of mental powers and processes, of principles and methods of teaching. What I have given I think will suffice to make clear the plan we followed in our work. I can say for this plan that it yielded good results even with ordinary third grade rural teachers, whose academic knowledge was very limited. It served to initiate them into following out serious lines of thought. They began to make use of introspection for finding out more about mental processes. It also served for awakening in them a desire for reading books on the subject so as to profit by the thoughts and experiences of others. They became curious, many questions arose in their minds to which they sought answers. Problems came up which they wished to solve. It helped them much in the study of their other lessons. It seemed it taught them how to study. A number that had been indifferent became ambitious and wide awake.

So my opinion is that the most profitable institute work is professional work. There should be academic work done with the object of making clear psychological and pedagogical processes and principles. Thus the teachers are being prepared for reading and studying understandingly special professional treatises as well as enabling them the easier to make up deficiencies in their academic knowledge.

JOHN S. ROESELER,  
County Supt. of Schools of Sauk County.

## FOR STATE SUPERINTENDENT.



Our County Superintendent of Schools Seeks a Place on the Republican State Ticket.

[From The Baraboo Republic.]

Sauk county is not to be without a candidate for a position on the Republican State ticket. John S. Roeseler, who has supervised our county schools for the last four years, and who has become known to the educational workers of the state as one of their strongest men, will seek the nomination of State Superintendent of Public Instruction at the hands of the Republican party.

Mr. Roeseler was born in Lomira, Dodge county, in 1859. His early days were spent upon the farm where he



was born. Early in life his father went to the war, and young Roeseler was left the sole support of his family. Every obstacle seemed to have been thrown in his way to curtail his preparation for life, but above them all he rose triumphantly and with the energy and zeal which has characterized his later life, he pushed himself forward through the district school and when the limited facilities of that failed to better him, he entered the seminary at Naperville, Ill., and prepared for our State University. In this institution Mr. Roeseler, though greatly impeded by poverty and other obstacles and without the backing of rich or influential friends, early showed himself a strong student. While still in his Junior year, he was elected a joint debater, an honor enjoyed by but few of Wisconsin's sons in that school. Graduating in 1888 with special and general honors, he was one of the orators to represent his class, and was voted a scholarship for two years by the faculty. During these two years he was assistant librarian and instructor in dynastic history. In 1890 Mr. Roeseler assumed charge of the Sauk City schools and soon made that town an educational center which was looked upon with jealous eyes by all the neighboring high schools. The effect of his work in Sauk is seen in the county today by the large number of country teachers who have gone forth from his school and made a success of the teaching work. From Sauk City have come more first grade teachers than from any other high school in the county in proportion to the number of students attending.

In the falls of 1895 and 1897, Mr. Roeseler was nominated by the Republicans of this county for Superintendent of schools, receiving a handsome majority in each election. Readers of The Republic know of the efficient work he has done in our county in elevating our rural schools. In fact, Supt. Roeseler is considered one of the staunchest supporters of the country school in the state; his heart is in this

work and this tells why our county has come to the front as a great educational section. His labors have not been unrewarded, for he has the hearty support of the school boards, teachers and people of the county in his untiring efforts to make the common school second to none of its class in the country.

Mr. Roeseler is a Republican, believing most implicitly in the doctrine of protection and sound money. Two years ago he was a delegate from his home town to the state convention which selected the Republican electors on the state ticket. He has already received a handsome endorsement from his native county, Dodge, in an editorial in the Dodge County Citizen.

The Republican party could put no more practical, thoroughly equipped man upon its ticket for the duties of the State Superintendent's office than John S. Roeseler, of Sauk. He has taught in every kind of a school from the little log school house to and including the State University. He is a man of strong executive ability, in the prime of life, and wins the admiration of all with whom he comes in contact. The Republic sees in Mr. Roeseler a strong representative for the county and predicts his successful nomination by the Republican convention, which, of course, means his certain election.





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